

CLAIMS

1. A method for producing a dialkyl carbonate and a diol, comprising:

5 (a) effecting a transesterification reaction between a cyclic carbonate and an aliphatic monohydric alcohol in the presence of a transesterification catalyst, thereby obtaining a reaction mixture containing a product dialkyl carbonate and a product diol,

10 (b) withdrawing a dialkyl carbonate-containing liquid from said reaction mixture, followed by separation of the dialkyl carbonate from the dialkyl carbonate-containing liquid, and

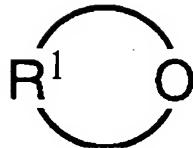
15 (c) withdrawing a diol-containing liquid from said reaction mixture, followed by separation of the diol from the diol-containing liquid,

 said steps (b) and (c) being performed in either order or simultaneously,

20 wherein:

 said cyclic carbonate contains a cyclic ether represented by the formula (1) below in an amount of from 0.1 to 3,000 ppm by weight, and

25 said product dialkyl carbonate contains a carbonate ether represented by the formula (2) below in an amount of not more than 10,000 ppm by weight,



(1)

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wherein R^1 represents a divalent group represented by the formula: $-(CH_2)_m-$ wherein m is an integer of from 2 to 6, and at least one hydrogen atom of R^1 is optionally replaced by at least one substituent group selected from the group consisting of a C_{1-10} alkyl group and a C_{6-10} aryl group, and



(2)

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wherein R^1 is as defined above for formula (1), R^2 represents a C_{1-12} monovalent aliphatic group, and at least one hydrogen atom of R^2 is optionally replaced by at least one substituent group selected from the group consisting of a C_{1-10} alkyl group and a C_{6-10} aryl group.

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2. The method according to claim 1, wherein the amount of said cyclic ether in said cyclic carbonate is from 3 to 1,500 ppm by weight.

3. The method according to claim 2, wherein the amount of said cyclic ether in said cyclic carbonate is from 10 to 1,000 ppm by weight.

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4. The method according to any one of claims 1 to 3, wherein said cyclic carbonate is ethylene carbonate.

5. The method according to any one of claims 1 to 4,
10 wherein said transesterification reaction is performed
in a reactive distillation column.

6. A dialkyl carbonate produced by the method of any
one of claims 1 to 5, which contains a carbonate ether
15 represented by the formula (2) of claim 1 in an amount
of from 1 to 10,000 ppm by weight.

7. The dialkyl carbonate according to claim 6, wherein
the amount of said carbonate ether in the dialkyl car-
20 bonate is from 3 to 5,000 ppm by weight.

8. The dialkyl carbonate according to claim 7, wherein
the amount of said carbonate ether in the dialkyl car-
bonate is from 10 to 3,000 ppm by weight.